

Remarks/Arguments:

As a preliminary matter, Applicants appreciate the time and courtesy extended by the Examiner during the telephonic interviews conducted on September 30, 2003 and October 2, 2003. During the interview on October 2, 2003, the undersigned and the Examiner discussed the pending claims and the cited prior art references.

Claims 1-3, 5-8, 14-15, and 22-26 are currently pending in this application. Claims 4 and 19 have been cancelled without prejudice or disclaimer of the subject matter thereof. Claims 1, 5, 14, 22, 23, 24, 25, and 26 have been amended.

For the following reasons, it is respectfully submitted that this application is now in form for allowance.

Drawings

Because of the cancellation of claim 19, the objection to the drawings is now moot. Withdrawal of the objection to the drawings is respectfully requested.

Claim Rejections - 35 U.S.C. § 112

Claims 4, 15, and 26 stand rejected under 35 U.S.C. § 112, second paragraph.

In view of the amendments made to claims 14 (upon which claim 15 depends) and 26, it is respectfully submitted that the rejections of claims 4, 15, and 26 should be withdrawn. Specifically, claim 14 has been amended to recite that the stud has a shoulder positioned to contact a limiting surface of the other one of the structures and that the shoulder of the stud on one of the structures contacts the limiting surface of the other one of the structures. Accordingly, there is now adequate structure cited to support the functional recitation of "and thereby maintaining said predetermined gap between said structures." With regard to claim 26, that claim has been amended to recite "means for disengaging said stud . . . ," thereby removing the language objected to in the Office Action.

For the foregoing reasons, it is respectfully submitted that the claim rejections under 35 U.S.C. § 112, second paragraph, should now be withdrawn.

Claim Rejections - 35 U.S.C. § 102

Balsells (U.S. Patent No. 4,678,210)

Claims 1, 6-8, 14, 19, 22, and 26 stand rejected as anticipated by Balsells (U.S. Patent No. 4,678,210).

Regarding claim 1 and dependent claims 6-8, claim 1 has been amended to recite that the resilient member is secured between surfaces of a second one of the structures, each of the surfaces being substantially perpendicular to the axis of the stud. Referring, for example, to the radial spring retention housing 282 shown in Figs. 20 and 28 for purposes of illustration, a radial spring 284 is captured between a pair of opposed surfaces 294. Numerous other embodiments of such surfaces are disclosed in the application as well.

Balsells fails to disclose a resilient member secured between surfaces that are each substantially perpendicular to the axis of the stud. In fact, Balsells teaches that "a second surface of revolution 40 [is] disposed at an angle with the access A." Balsells at column 3, lines 44-45. Preferably, according to Balsells, "the first and second [angled] surfaces of revolution 24, 40 are disposed approximately parallel with one another." Balsells at column 4, lines 12-14. Accordingly, Balsells fails to anticipate amended claim 1 or dependent claims 6-8.

Regarding claim 14, claim 14 has been amended to recite that the stud has a shoulder positioned to contact a limiting surface of the other one of the structures and that the shoulder of the stud on one of the structures contacts the limiting surface of the other one of the structures.

Balsells fails to disclose a stud having a shoulder positioned to contact a limiting surface of the other one of the structures such that the shoulder of the stud on one of the structures contacts the limiting surface of the other one of the structures. Accordingly, Balsells fails to anticipate claim 14.

Regarding claim 22, claim 22 has been amended to recite that the stud extends outwardly from a door or a frame and that the resilient member is positioned adjacent a surface of the other one of the door or the frame. Claim 22 has also been amended to clarify that the resilient member has a relaxed position wherein the outer surface of the resilient member contacts the surface of the other one of the door or the frame.

Balsells fails to disclose a latching assembly for providing releasable engagement between a door and a frame, a stud extending outwardly from one of the door or the frame, or a resilient member positioned adjacent a surface of the other one of the door or the frame. Accordingly, Balsells fails to anticipate claim 22.

Regarding claim 26, claim 26 has been amended to recite that the torroidal spring is positioned to engage the stud and has been further amended to clarify that the system includes means for disengaging the stud and the torroidal spring by application of forces parallel to an axis of the stud.

The Office Action fails to recite any structure corresponding to Applicants' claimed means for disengaging the stud and the torroidal spring by application of forces parallel to an axis of the stud. More specifically, Balsells fails to disclose the structure for disengaging the stud and the torroidal spring disclosed in Applicants' specification (see, e.g., the exemplary embodiments illustrated in Figs. 1B and 1C), or any equivalents thereof. The disengaging means (illustrated, for example, in Figs. 1B and 1C) provide a mechanism to assist the user's manual separation of the stud and the torroidal spring. Because Balsells fails to disclose such means, Balsells fails to anticipate claim 26.

For the foregoing reasons, it is respectfully submitted that the subject claims are patentable over Balsells.

Goss (U.S. Patent No. 5,639,113)

Claims 1-8, 14, 19, and 22-25 stand rejected as being anticipated by Goss (U.S. Patent No. 5,639,113).

Regarding claim 1 and dependent claims 2-3 and 5-8, Goss fails to anticipate those claims for the same reasons set forth previously in the discussion of the Balsells reference. More specifically, Goss fails to disclose a resilient member secured between surfaces of a second one of the structures, each of those surfaces being substantially perpendicular to the axis of the stud.

Regarding claim 14, Goss (like Balsells) fails to disclose a stud having a shoulder positioned to contact a limiting surface of the other one of the structures such that the shoulder

of the stud on one of the structures contacts the limiting surface of the other one of the structures. Accordingly, Goss fails to anticipate claim 14.

Regarding claim 22, Goss fails to disclose a latching assembly for providing releasable engagement between a door and a frame with a stud extending outwardly from the door or the frame and a resilient member positioned adjacent a surface of the other one of the door or the frame. Goss also fails to disclose a resilient member having a relaxed position wherein the outer surface of the resilient member contacts the surface of the other one of the door or the frame. Accordingly, Goss fails to anticipate claim 22.

Regarding claim 23, Goss fails to disclose a latching system for providing releasable engagement between a door and an enclosure having a stud extending outwardly from the door or the enclosure and a resilient spring member secured in a spring housing adjacent a surface of the other one of the door or the enclosure, the resilient member releasably engaging the surface of the stud in the relaxed state, thereby providing releasable engagement between the door and the enclosure. Accordingly, Goss fails to anticipate claim 23.

Regarding claim 24, Goss fails to anticipate a latching system for releasably engaging a door to a frame having a stud mounted on the door or the frame, a coiled spring mounted in a housing on the other one of the door and the frame wherein an outer surface of the coiled spring is constrained by contacting the housing to prevent movement of the outer surface of the coiled spring radially outward. Goss further fails to disclose that a user of the latching system can release the stud from the coiled spring without the use of a tool. Accordingly, Goss fails to anticipate claim 24.

Regarding claim 25, Goss fails to disclose a door assembly having a frame, a door mounted for movement with respect to the frame, a stud extending from the frame or the door, or a resilient member retained adjacent to a surface of the other one of the frame or the door, wherein a surface is positioned to constrain the outer surface of the resilient member and prevent movement of the outer surface of the resilient member radially outwardly, and wherein the resilient member releasably engages the outer surface of the stud, thereby providing releasable engagement between the door and the frame. Goss further fails to disclose a system wherein a user of the door assembly can release the stud from the resilient member without the use of a tool. Accordingly, Goss fails to anticipate claim 25.

For the foregoing reasons, it is respectfully submitted that the subject claims are patentable over Goss.

Larson (U.S. Patent No. 5,154,308)

Claims 1-8, 14, 15, and 22-25 stand rejected as anticipated by Larson (U.S. Patent No. 5,154,308).

For at least those reasons set forth previously with respect to the Goss reference, Larson also fails to anticipate claims 1-8, 14, 15, and 22-25. More specifically, Larson fails to disclose:

- (1) a resilient member secured between surfaces of a second one of the structures, each of those surfaces being substantially perpendicular to the axis of the stud (claim 1 and dependent claims 2-3 and 5-8);
- (2) a stud having a shoulder positioned to contact a limiting surface of the other one of the structures such that the shoulder of the stud on one of the structures contacts the limiting surface of the other one of the structures (claim 14 and 15);
- (3) a latching assembly for providing releasable engagement between a door and a frame with a stud extending outwardly from the door or the frame and a resilient member positioned adjacent a surface of the other one of the door or the frame, wherein the resilient member has a relaxed position wherein the outer surface of the resilient member contacts the surface of the other one of the door or the frame. (claim 22).
- (4) a latching system for providing releasable engagement between a door and an enclosure having a stud extending outwardly from the door or the enclosure and a resilient spring member secured in a spring housing adjacent a surface of the other one of the door or the enclosure, the resilient member releasably engaging the surface of the stud in the relaxed state, thereby providing releasable engagement between the door and the enclosure (claim 23);
- (5) a latching system for releasably engaging a door to a frame having a stud mounted on the door or the frame, a coiled spring mounted in a housing on the other one of the door and the frame wherein an outer surface of the coiled spring is constrained by contacting the housing to prevent movement of the outer surface of the coiled spring radially outward (claim 24); and

(6) a door assembly having a frame, a door mounted for movement with respect to the frame, a stud extending from the frame or the door, or a resilient member retained adjacent to a surface of the other one of the frame or the door, wherein a surface is positioned to constrain the outer surface of the resilient member and prevent movement of the outer surface of the resilient member radially outwardly, and wherein the resilient member releasably engages the outer surface of the stud, thereby providing releasable engagement between the door and the frame (claim 25).

For the foregoing reasons, it is respectfully submitted that the subject claims are patentable over Larson.

CLAIM REJECTIONS -- 35 U.S.C. § 103

Balsells (U.S. Patent No. 4,678,210)

Claims 2 and 3 stand rejected as unpatentable over Balsells.

As discussed previously, Balsells fails to disclose or suggest a resilient member secured between surfaces of a second structure, wherein each of the surfaces is substantially perpendicular to the axis of the stud. Also, as acknowledged in the Office Action, Balsells fails to disclose a frame (claim 2) or a stud mounted on a frame (claim 3).

Balsells generally relates to locking mechanisms for cylindrical members and is more particularly directed to mechanisms for both locking and axially loading, or biasing, cylindrical members with one another. Balsells at column 1, lines 4-8. More specifically, the Balsells invention is directed to the engaging and interlocking of lightweight, delicate and many times fragile cylindrical parts with one another and is most suited for laboratory type equipment, such as titrators, diluters, syringe pumps and the like, utilized in laboratory chemical analysis, such as in hematology, pathology and biochemical applications. Balsells at column 1, lines 9-18. Many such devices require the coupling and recoupling of cylindrical or tubular members therewith, such as pipettes, syringes, etc., which much be quickly connected to and disconnected from the apparatus. Balsells at column 1, lines 19-22.

There is no suggestion or motivation to modify Balsells' locking mechanism for cylindrical members of laboratory equipment in such a way to arrive at Applicants' claimed system for providing releasable engagement between two structures including a resilient member secured

between surfaces of one of the structures, each of those surfaces being substantially perpendicular to the axis of the stud (claim 1), and wherein one of the structures comprises a frame (claim 2) and the stud is mounted on the frame (claim 3).

For the foregoing reasons, it is respectfully submitted that claims 2 and 3 patentable over Balsells.

Goss (U.S. Patent No. 5,639,113)

Claim 15 stands rejected as being unpatentable based on Goss (U.S. Patent No. 5,639,113).

As stated previously, Goss fails to disclose a stud having a shoulder positioned to contact a limiting surface of the other one of the structures such that the shoulder of the stud on one of the structures contacts the limiting surface of the other one of the structures, thereby maintaining a predetermined gap between the structures. Additionally, as acknowledged in the Office Action, Goss fails to disclose a stud mounted on a frame and a radial spring mounted on a door.

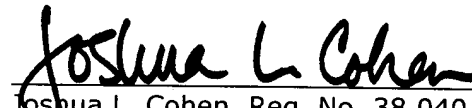
Goss relates to fastening assemblies for mounting protected modules containing inflatable restraint bags in passenger vehicles. Goss at column 1, lines 9-11. As illustrated in Goss' Fig. 8, a locking ring 28 is captured by a shoulder 19a, and any attempt to withdraw a pin 12 is resisted. Goss at column 4, lines 31-33. Accordingly, Goss fails to disclose or suggest an inner surface of a radial spring that is resiliently expandable radially outwardly to an expanded position to permit passage of a stud when an axial force is applied to the stud or the radial spring to urge first and second structures apart, as recited in claim 14 and dependent claim 15.

For the foregoing reasons, it is respectfully submitted that claim 15 is patentable over Goss.

CONCLUSION

For the foregoing reasons, and in view of the amendments in the claims, it is respectfully submitted that this application is now in proper form for allowance. A Notice of Allowance is respectfully requested.

Respectfully submitted,



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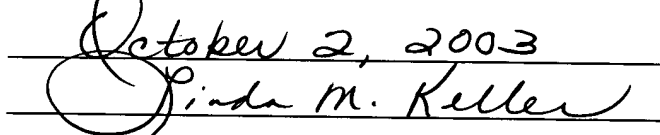
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October 2, 2003
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